DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 99.28

WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-021440
Date Inspected: 01-Mar-2011

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC) Chanxing Island

OSM Arrival Time: 700
OSM Departure Time: 1900
Location: Shanghai, China

CWI Name:	Mr. Qui Wen			**CWI Present:**	☑ Yes	☐ No	
Inspected CWI report:	☐ Yes	☑ No	☐ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☐ Yes	☑ No	☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Approved WPS:**	☑ Yes	☐ No	☐ N/A
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A

Bridge No: 34-0006
Component: OBG Segment

Summary of Items Observed:

On this date Caltrans OSM Quality Assurance Inspector (QA), Vibin Kumar Selvanayaham, was present during the times noted above for observations relative to the work being performed.

Ultrasonic Testing (UT) – NWIT Document No: 008420

This QA inspector performed UT of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an UT report for this date. The members are identified as OBG Segment 14W. The weld designations reviewed are as follows:

1. AP3032-001-1038

Bay 14

This QA Inspector observed the following work in progress:

Shielded Metal Arc Welding (SMAW) repair welding of weld joint SEG3020BB-046 located on Bottom Plate to Vertical Shear Plate of OBG Segment 14W. ZPMC Welder is identified as 067942. ZPMC Quality Control (QC) is identified as Mr. Zhu Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-SMAW-2G-(2F)-FCM-Repair, which is used as per Critical Welding Repair (CWR) B-CWR2-2752.

SMAW repair welding of weld joint SEG3020BB-078 located on Bottom Plate to Vertical Shear Plate of OBG

Segment 14W. ZPMC Welder is identified as 067707. ZPMC Quality Control (QC) is identified as Mr. Zhu Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-SMAW-2G-(2F)-FCM-Repair, which is used as per Critical Welding Repair (CWR) B-CWR2-2752.

Flux Core Arc Welding (FCAW) welding of weld joint FB3316-001-094 and 095 located on Floor Beam of OBG Segment 14W. ZPMC Welder is identified as 066673. ZPMC Quality Control (QC) is identified as Mr. Zhu Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-T-2132-ESAB.

SMAW welding of weld joint SEG3020Z-004 located on Edge Plate of OBG Segment 14W. ZPMC Welder is identified as 067829. ZPMC Quality Control (QC) is identified as Mr. Sun Tian Liang. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-P-2214-B-U2-FCM-1.

SMAW welding of weld joint SEG3020W-034 located on Edge Plate of OBG Segment 14W. ZPMC Welder is identified as 066673. ZPMC Quality Control (QC) is identified as Mr. Sun Tian Liang. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-P-2214-B-U2-FCM-1.

SMAW welding of weld joint SEG3020W-192 located on Longitudinal Diaphragm of OBG Segment 14W. ZPMC Welder is identified as 067825. ZPMC Quality Control (QC) is identified as Mr. Sun Tian Liang. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-P-2214-B-U2-FCM-1.

SMAW welding of weld joint SEG3015J-012 located on Deck Panel Diaphragm to Deck Panel Diaphragm of OBG Segment 13CW. ZPMC Welder is identified as 066443. ZPMC Quality Control (QC) is identified as Mr. Zhang Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-P-2213-Tc-U4b-FCM-1.

SMAW welding of weld joint SEG3015L-146 located on Side Plate I-Ribs to Floor Beam of OBG Segment 13CW. ZPMC Welder is identified as 037996. ZPMC Quality Control (QC) is identified as Mr. Zhang Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-P-2213-Tc-U4b-FCM-1.

FCAW welding of weld joint DP3138-001-084 and 085 located on Deck Panel Diaphragm U-Ribs of OBG Segment 13BW. ZPMC Welder is identified as 204730. ZPMC Quality Control (QC) is identified as Mr. Zhang Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-T-2132-ESAB.

SMAW repair welding of weld joint DP3174-001-034 located on Deck Panel to Deck Panel Diaphragm of OBG Segment 14W. ZPMC Welder is identified as 067588. ZPMC Quality Control (QC) is identified as Mr. Li Ping. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-SMAW-2G-(2F)-FCM-Repair, which is used as per Welding Repair Report (WRR) B-WRR-20289.

SMAW repair welding of weld joint DP3173-001-022 located on Deck Panel to Deck Panel Diaphragm of OBG Segment 14W. ZPMC Welder is identified as 0663987. ZPMC Quality Control (QC) is identified as Mr. Li Ping. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-SMAW-2G-(2F)-FCM-Repair, which is used as per Welding Repair Report (WRR) B-WRR-20289.

QA witness/observation: During a random in process inspection of Orthotropic Box Girder (OBG) Deck Panel

WELDING INSPECTION REPORT

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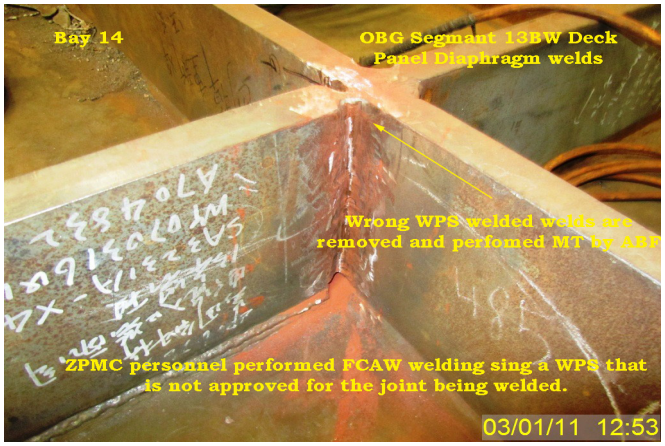
(DP) Sub assemblies DP3126A and DP3127A, this Caltrans Quality Assurance (QA) Inspector witness and observed that ZPMC personnel removed the wrong welded welds and ABF personnel performed MT on these weld removal areas. Regarding this issues CT QA B299 wrote incident report following as:
ZPMC welding personnel performed Flux Cored Arc Welding (FCAW) using a WPS that is not approved for the joint being welded.
-The welding was being performed to WPS-B-T-2133-ESAB which specifies A709-345 to A709-345 material using filler metal brand ESAB Dual Shield 70 Ultra Plus with classification E71T-1M/T-9M.
-The material being welded was A709-345 to A709-HPS-485.
-The welds are fillet weld T-joints, joining Seismic Performance Critical Material (SPCM) diaphragms identified as X4095B and X7516D to Rib Stiffeners identified as RS3387L, M and K.
-The weld joints are identified as SA3231C-008~013.The segment and Panel Point is 13 BW and PP120.5.
- The thickness of the material is 30mm. OBG DP3126A and DP3127A is located in Assembly Bay #14. See the attached pictures.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.



Summary of Conversations:
Only general conversation was held between QA and QC concerning this project.
Comments
This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact , who represents the Office of Structural Materials for your project.

Inspected By:	Kumar,Vibin	Quality Assurance Inspector
Reviewed By:	Patel,Hiranch	QA Reviewer